

524,695

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



15 FEB 2005



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/016977 A1

(51) International Patent Classification⁷: **F16L 19/02**,
55/00, B25B 27/16, E21B 17/02

(21) International Application Number:
PCT/NO2003/000283

(22) International Filing Date: 18 August 2003 (18.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20023926 19 August 2002 (19.08.2002) NO

(71) Applicants (for all designated States except US): **MA-
RINE DIRECT CONSULTANTS LTD.** [GB/GB];
Westhill Business Park, Arnhall Business Park, Westhill,
Aberdeenshire AB51 5LT (GB). **HÅMSØ**, Gunnar
[NO/NO]; P.O. Box 171, N-4302 Sandnes (NO).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GILES, John**,

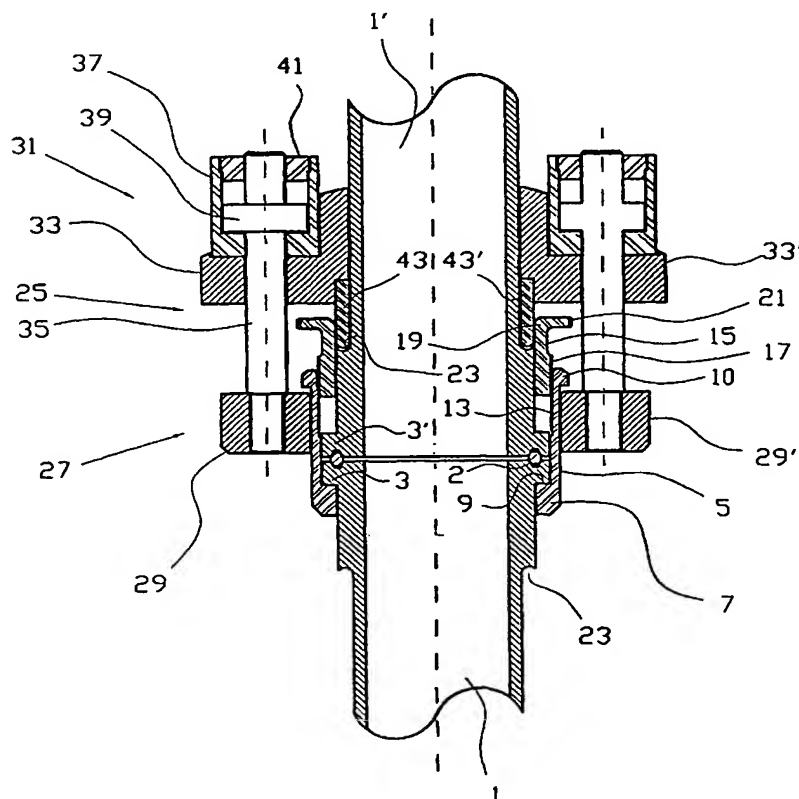
S. [GB/GB]; Moss Side House, East Blairdaff, Ab-
erdeenshire, Aberdeenshire AB51 5LT (GB). **VORLEY**,
Stephen, W. [GB/GB]; 6 Grampian Terrace, Torphins,
Aberdeenshire, Aberdeenshire AB31 4JS (GB).

(74) Agent: **HÅMSØ PATENTBYRÅ ANS**; P.O. Box 171,
N-4302 Sandnes (NO).

(81) Designated States (*national*): AE, AG, AL, AM, AT (util-
ity model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (util-
ity model), DE, DK (utility model), DK, DM, DZ, EC, EE
(utility model), EE, ES, FI (utility model), FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

[Continued on next page]

(54) Title: MEANS FOR CONNECTING PIPES COMPRISING AN AXIAL PRESS SURFACE TO TAKE AXIAL PRESSURE FROM A PRELOADING TOOL



(57) Abstract: A means of connecting pipes, comprising a seal (2), flanges (3, 3'), a threaded portion (15) and a nut (5), where the end portion (1, 1') of the pipe is equipped with a concentric press surface (23) located immediately proximal to the periphery of the pipe (1, 1') and designed to be able to take an axial pressure from a preloading tool (25), which pressure is distributed evenly or point-by-point about the periphery of the pipe. A means of compressing pipe couplings, where a preloading tool (25) comprises two end sections (27, 31) connected to two or more rods (35), each rod (35) being equipped with a hydraulic cylinder (37).

WO 2004/016977 A1